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United States Patent [19]**Kreegar**[11] **Patent Number:** **5,396,590**[45] **Date of Patent:** **Mar. 7, 1995**[54] **NON-MODAL METHOD AND APPARATUS FOR MANIPULATING GRAPHICAL OBJECTS**[75] Inventor: **Jeffrey W. Kreegar**, Brisbane, Calif.[73] Assignee: **Apple Computer, Inc.**, Cupertino, Calif.[21] Appl. No.: **946,930**[22] Filed: **Sep. 17, 1992**[51] Int. Cl.⁶ **G06F 3/00; G06F 15/62**[52] U.S. Cl. **395/159; 395/161; 395/136; 395/137; 345/163; 345/121**[58] Field of Search **395/159, 161, 155, 136-139, 395/133; 345/121, 126, 127, 131, 163, 167**[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Raymond J. Bayerl*Attorney, Agent, or Firm*—Blakely, Sokoloff, Taylor & Zafman[57] **ABSTRACT**

A computer controlled graphics display system that treats graphical objects in a uniform fashion for consistent, non-modal and direct manipulation of graphics objects. The user, by operating in a visual "point and click" fashion, may select a graphical object or shape and manipulate it in a number of ways without having to activate different modes for different manipulations. Possible manipulations include dragging, scaling, rotating and skewing. More than one shape can be selected and manipulated by compositing intersected shapes with a selection rectangle. The graphic manipulations are platform independent and thus are all carried out by directing the point and click tool.

21 Claims, 10 Drawing Sheets